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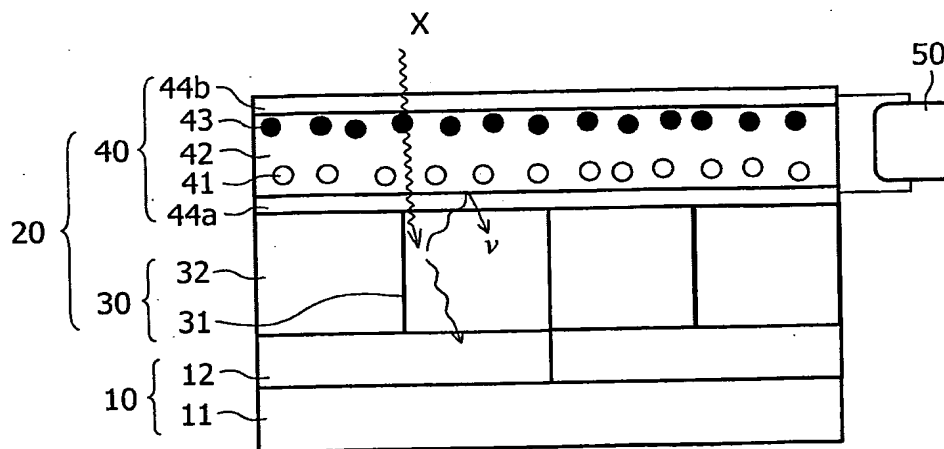
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(54) Title: SCINTILLATOR FOR AN X-RAY DETECTOR WITH A VARIABLE REFLECTOR



(57) Abstract: The invention concerns an X-ray detector with a photo-sensitive detector layer (10) above which a scintillation layer (30) for the conversion of X-rays (X) into photons (v) is disposed. Photons (v) are reflected back into the scintillation layer (30) by a reflector (40) that is provided on the scintillation layer (30) for an improved signal gain and signal-to-noise ratio. The reflectivity of the reflector (40) can be externally controlled. This is achieved for example by a reflective layer (41, 42, 43) of E-Ink being disposed between two electrodes (44a, 44b). Thus the reflectivity can be decreased at sufficiently high X-ray doses in order to improve image sharpness and dynamic range of the detector.

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